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EXAMINER

BLACKWELL, JAMES H

ART UNIT	PAPER NUMBER
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2176

DATE MAILED: 06/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/769,927

Applicant(s)

RUSSELL, JOHN

Examiner

James H Blackwell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 January 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 15-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Wical (U.S. Patent No. 6,112,201).

In regard to independent Claim 1 (and similarly independent Claim 15), Wical teaches a virtual bookshelf system that provides a user with a way to browse and locate information associated with a plurality of documents (Col. 2, lines 15-17; compare to Claim 1 (and similarly Claim 15), ***“An automated method of composing a virtual book from a set of electronically stored documentation comprising multiple books, the method comprising: ...”***). Wical also teaches that the locate term may be a natural language term, a category from the hierarchical structure, a concept, or an example of text from a document (Col. 3, lines 4-7; compare to Claim 1 (and similarly Claim 15), ***“... identifying a plurality of topics in the documentation, wherein each said topic is associated with a portion of the documentation”***). Wical also teaches that the virtual bookshelf system contains classification information to classify the documents in a hierarchical structure that includes a plurality of hierarchical levels

based on pre-defined categories (Col. 2, lines 17-20; compare to Claim 1 (and similarly Claim 15), “... **determining a structure of the documentation, wherein said structure indicates a hierarchy of said topics within the documentation; classifying each of said topics within one or more categories**”). Wical also teaches that the virtual bookshelf system also includes a virtual clerk for locating documents of interest. The virtual clerk receives a locate term for locating information from the documents. In response, the virtual bookshelf system locates, if possible, one or more match categories in the hierarchical structure that relates to the locate term, and it displays a portion of the hierarchical structure that includes the match category such that a path is defined from the highest hierarchical levels to the hierarchical level of the match category. The locate term may be a natural language term, a category from the hierarchical structure, a concept, or an example of text from a document (Col. 2, lines 63-67; Col. 3, lines 1-7; compare to Claim 1 (and similarly Claim 15), “... **receiving a subject for a virtual book**” and “... **composing said virtual book to include a subset of said topics that are relevant to said subject**” and “... **each said relevant topic includes a pointer to said associated portion of the documentation**”).

In regard to dependent Claims 2-5, Wical teaches that the virtual bookshelf system also includes a virtual clerk for locating documents of interest. The virtual clerk receives a locate term for locating information from the documents. In response, the virtual bookshelf system locates, if possible, one or more match categories in the hierarchical structure that relates to the locate term, and it displays a portion of the hierarchical structure that includes the match category such that a path is defined from

the highest hierarchical levels to the hierarchical level of the match category. The locate term may be a natural language term, a category from the hierarchical structure, a concept, or an example of text from a document (Col. 2, lines 63-67; Col. 3, lines 1-7; compare to Claim 2, “... **searching said topics for a set of topics relevant to said subject**” and Claim 3, “... **said relevant topics are grouped in said virtual book by said categories**” and Claim 4, “... **said relevant topics within a first category are listed in the order of their relevance to said subject**” and Claim 5, “... **said relevant topics within a first category are listed in the order they occur within the documentation**”).

In regard to dependent Claims 6 and 7, Wical teaches that the classification information further includes index heads and index context entries that are related to the index heads. The index heads are content carrying words from the documents but the words are not pre-defined categories. The index context entries are terms from the documents that are used in the context of the index heads. The hierarchical structure is expanded through mapping of the index heads into the predefined categories (Col. 2, lines 40-44; compare to Claim 6, “... **identifying index entries in the documentation**” and Claim 7 “... **said index entries are included in said virtual book**”).

In regard to dependent Claim 8, Wical teaches that a book end is rendered for each document available for the currently selected category. The graphical depiction of the available documents for the selected category "OS/2" is labeled (440) on the example display of Fig. 4e. The width of the book end for a corresponding document indicates the relevance of the document for the currently selected (10) category relative

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to the other available documents. For the example display of Fig. 4e, the width of the book ends in the graphical book end rendering (440) indicate how relevant the document is to OS/2. In addition, the book end for the currently selected document is highlighted (Col. 17, lines 59-67; Col. 18, lines 1-3; compare with Claim 8, “... **sorting said relevant topics according to their relevance to said topic**”).

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wical.

In regard to independent Claim 16, Wical teaches that the virtual bookshelf system contains classification information to classify the documents in a hierarchical structure that includes a plurality of hierarchical levels based on pre-defined categories (Col. 2, lines 17-20; compare to Claim 16, “... **a heading copied from a first file of a first book in the documentation**”). Wical also teaches that a list function displays the list of documents classified for a selected category. A view function displays themes from the documents that are classified for the category selected. The virtual bookshelf system also includes action functions that operate on selected documents (Col. 2, lines 45-54; compare to Claim 16, “... **a file reference to said first file; a book reference to said first book; a first heading reference to a parent of said heading in said first book; a second heading reference to a child of said heading in said first book; and one or more category identifiers, wherein each said category identifier is configured to identify a category into which said heading is classified**”).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wical.

In regard to dependent Claim 9, Wical does not specifically teach *said categories include one or more of the set of: concept, task example, reference and troubleshooting*. However, Wical does teach that a user may browse the virtual bookshelf to locate information through navigation of the hierarchies. Fig. 2b illustrates expansion of the "science, technology, and education" category into a number of categories arranged in a lower hierarchical level. The example shown in Fig. 2b is generated in response to a user selecting the "science, technology, and education" category and invoking the expand function via the expand button (230). In general, when one of the high level knowledge catalog categories are selected for expansion, a list of categories in the next lower level of the hierarchy for the selected item are displayed. The categories in the next level of the hierarchy for the "science, technology, and education" category are "communications", "education", "hard science and technology", "social sciences", and "transportation." Again, the number of documents available in the virtual bookshelf system that pertain to that category is displayed adjacent to the category name (Col. 11, lines 60-67; Col. 12, lines 1-9). It would have been obvious to one of ordinary skill in the art at the time of invention to group documents, or segments of documents into

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categories based on identified topics in the documents providing the benefit of ease in locating specific information.

Claims 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wical in view of Shima et al. (hereinafter Shima, U.S. Patent No. 5,835,922).

In regard to dependent Claim 10, Wical fails to teach *identifying a characteristic of a viewer of said virtual book; and customizing said virtual book for the viewer on the basis of said characteristic*. However, Shima teaches that as for objects to be processed as intentions of the user according to the present invention, there are handled, for example, a desire of the user to read the document at will, an intention to create a document according to a story imagined by the user, and/or an idea to reconfigure a document to be adapted to an object, a plan, or an expectation (Col. 4, lines 5-11; compare to Claim 10, “... ***identifying a characteristic of a viewer of said virtual book; and customizing said virtual book for the viewer on the basis of said characteristic***”). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Wical and Shima providing the benefit of customizing a document according to the requirements of a reader or writer.

In regard to dependent Claims 11 and 12, Wical fails to teach *the characteristic is one of the set of: employment role and level of experience and said characteristic comprises a level of experience of the user and said customizing comprises omitting one or more of said categories from said virtual book*. However, Shima teaches that an attribute of the reader is recognized so that the form of the document is converted



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according to the attribute. For example, when the reader is an executive, the document is prepared so as to present a summary (Col. 3, lines 64-67; Col. 4, line 1; compare to Claim 11, “... ***the characteristic is one of the set of: employment role and level of experience***” and Claim 12, “... ***said characteristic comprises a level of experience of the user and said customizing comprises omitting one or more of said categories from said virtual book***”). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Wical and Shima providing the benefit of customizing a document according to the requirements of a reader or writer.

In regard to dependent Claim 13, neither Wical nor Shima teach *said characteristic comprises an employment role of the user and said customizing comprises implementing said role as another category of said virtual book*. However, it would have been obvious to one of ordinary skill in the art at the time of invention to add another category to the virtual book providing the benefit of enhanced and more detailed identification of information.

Claims 14 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wical in view of Mortimer et al. (hereinafter Mortimer, U.S. Patent No. 6,091,930).

In regard to independent Claim 14, Wical teaches that the virtual bookshelf system is cataloged to include the classification information. The classification information includes, in addition to the categories arranged in the hierarchical structure, cross references among the categories to further classify the documents. By cross

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referencing the categories, a detailed and accurate classification of the documents is achieved. The classification information further includes index heads and index context entries that are related to the index heads. The index heads are content carrying words from the documents but the words are not pre-defined categories. The index context entries are terms from the documents that are used in the context of the index heads. The hierarchical structure is expanded through mapping of the index heads into the predefined categories (Col. 2, lines 34-47; compare with Claim 14, “... **storing physical attributes of the multiple files in a database**”). Wical also teaches that the locate term may be a natural language term, a category from the hierarchical structure, a concept, or an example of text from a document (Col. 3, lines 4-7; compare to Claim 14, “... **identifying topics within the documentation, wherein each said topic comprises a heading within one of the multiple files; associating unique identifiers with each of said topics**”). Wical fails to specifically teach *storing said topics in said database; for each of the stored topics: storing in said database a reference to a first book containing said topic; storing in said database a reference to a first file containing said topic; storing in said database a reference to a parent topic of said topic, if any, in the first book; and storing in said database a reference to a child topic of said topic, if any, in the first book*. However, Mortimer teaches that a primary database is generated which includes a plurality of subjects each having a knowledge level from a plurality of knowledge levels. The plurality of knowledge levels include elementary level, high school level, college level, graduate level and expert level. Each subject includes a plurality of topics formed from multimedia data including text, audio,

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video, illustration, simulation and animation. A secondary database is generated which includes a first set of subjects and topics selected from the plurality of subjects and the plurality of topics from the general purpose database. A primary link sequence is defined connecting the first set of subjects and topics in accordance with an order of the subject matter. A plurality of secondary link sequences are defined connecting the first set of subjects and topics to each other where the plurality of secondary link sequences are different than the primary link sequence. The plurality of secondary link sequences being activatable by the student. The selected subjects and topics are presented to the student in a presentation sequence based on the primary link sequence while allowing the student to dynamically change the presentation sequence by activating a selected one of the plurality of secondary link sequences (Col. 3, lines 21-45; compare to Claim 14, “... **storing said topics in said database; for each of the stored topics: storing in said database a reference to a first book containing said topic; storing in said database a reference to a first file containing said topic; storing in said database a reference to a parent topic of said topic, if any, in the first book; and storing in said database a reference to a child topic of said topic, if any, in the first book**”).

Mortimer fails to teach *categorizing each of said stored topics into one or more pre-determined categories, wherein each of said categories represents a type of topic.*

However, Wical does teach that the virtual bookshelf system contains classification information to classify the documents in a hierarchical structure that includes a plurality of hierarchical levels based on pre-defined categories (Col. 2, lines 17-20; compare to Claim 14, “... **categorizing each of said stored topics into one or more pre-**

***determined categories, wherein each of said categories represents a type of topic***”). Wical also teaches that the virtual bookshelf system also includes a virtual clerk for locating documents of interest. The virtual clerk receives a locate term for locating information from the documents. In response, the virtual bookshelf system locates, if possible, one or more match categories in the hierarchical structure that relates to the locate term, and it displays a portion of the hierarchical structure that includes the match category such that a path is defined from the highest hierarchical levels to the hierarchical level of the match category. The locate term may be a natural language term, a category from the hierarchical structure, a concept, or an example of text from a document (Col. 2, lines 63-67; Col. 3, lines 1-7; compare to Claim 14, “... ***receiving a subject for a virtual book; searching said stored topics for topics relevant to the subject; and presenting said virtual book to a viewer, wherein said virtual book comprises said relevant topics grouped according to said categories***”).

In regard to independent Claim 17, Wical teaches a virtual bookshelf system that provides a user with a way to browse and locate information associated with a plurality of documents (Col. 2, lines 15-17; compare to Claim 17, “... ***a set of electronic documentation files***”). Wical also teaches that the virtual bookshelf system provides a user a way to browse and locate information associated with a plurality of documents. The virtual bookshelf system contains classification information to classify the documents in a hierarchical structure that includes a plurality of hierarchical levels based on pre-defined categories. The virtual bookshelf system displays a portion of the

hierarchical structure including a representation of the categories. A user of the virtual bookshelf system may browse through the categories in the hierarchical levels to learn the general topics of the available documents. The user is permitted to select a particular category, and in response, the virtual bookshelf system displays document information for documents classified in the category selected. In one embodiment, categories are displayed in a history section to define a current path for the hierarchical structure from the highest hierarchical level to a currently selected hierarchical level. In addition, categories for the currently selected hierarchical level are displayed in a navigational section (Col. 2, lines 14-32; compare to Claim 17, “... **a topic module configured to identify a set of topics within said documentation, wherein each said topic comprises a heading appearing in said documentation; a structural analysis module configured to determine a hierarchy of said topics within said documentation; a categorizer configured to classify a first of said topics into one or more predetermined categories**”). Wical fails to specifically teach a *database configured to store said topics, said hierarchy and said classifications*. However, Mortimer teaches that a primary database is generated which includes a plurality of subjects each having a knowledge level from a plurality of knowledge levels. The plurality of knowledge levels include elementary level, high school level, college level, graduate level and expert level. Each subject includes a plurality of topics formed from multimedia data including text, audio, video, illustration, simulation and animation. A secondary database is generated which includes a first set of subjects and topics selected from the plurality of subjects and the plurality of topics from the general

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purpose database. A primary link sequence is defined connecting the first set of subjects and topics in accordance with an order of the subject matter. A plurality of secondary link sequences are defined connecting the first set of subjects and topics to each other where the plurality of secondary link sequences are different than the primary link sequence. The plurality of secondary link sequences being activatable by the student. The selected subjects and topics are presented to the student in a presentation sequence based on the primary link sequence while allowing the student to dynamically change the presentation sequence by activating a selected one of the plurality of secondary link sequences (Col. 3, lines 21-45; compare to Claim 17, “... **a database configured to store said topics, said hierarchy and said classifications**”). Mortimer also teaches that an example of a core configuration includes a Pentium 100 MHZ desktop computer system including cache memory, random access memory, a hard drive storage device, a multi-scan monitor, a 3.5 inch diskette drive, a sound card, keyboard, mouse, and a selected operating system. Of course, other configurations may be selected to improve processing power, storage capabilities, and presentation capabilities (Col. 5, lines 28-35; compare to Claim 17, “... **a processor configured to produce a virtual book comprising a subset of said set of topics, wherein said subset of said topics is relevant to a subject of said virtual book**”). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Wical and Mortimer providing the benefit of customized interactive textbooks.

In regard to dependent Claim 18, Wical teaches that the virtual bookshelf configuration contains documents, labeled documents (100) in Fig. 1. In general, the documents (100) provide the source of available information for use with the virtual bookshelf. The documents (100) may include a compilation of information from any source. For example, the documents (100) may be information stored on a computer system as readable text. Alternatively, the documents (100) may be accessed over a network and stored at a central location, such as a server (Col. 6, lines 6-8; compare with Claim 18, “... **a network server configured to present said virtual book to a user**”).

In regard to dependent Claim 19, Wical teaches an index action button (250) invokes an index function that displays a "back of book" index for a selected category or document in a traditional "back of book" index format. For a selected category, the "back of book" index is a combined "back of book" index for a bookshelf set of documents that combine the indexes of all of the documents in the bookshelf set (Col. 11, lines 25-31; compare with Claim 19, “... **an index module configured to assemble index entries referring to said relevant topics within said documentation**”).

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wical in view of Mortimer and in further view of Shima.

In regard to dependent Claims 20 and 21, Wical fails to teach that *said processor is further configured to customize said virtual book on the basis of one of a role of a*

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*viewer of said virtual book and a level of experience of the viewer and said categories include one or more of the set of: concept, task, example, reference, troubleshooting, role of a viewer of said virtual book and level of experience of the viewer.* However, Shima teaches that an attribute of the reader is recognized so that the form of the document is converted according to the attribute. For example, when the reader is an executive, the document is prepared so as to present a summary (Col. 3, lines 64-67; Col. 4, line 1; compare to Claim 20, “... **said processor is further configured to customize said virtual book on the basis of one of a role of a viewer of said virtual book and a level of experience of the viewer**” and Claim 21, “... **said categories include one or more of the set of: concept, task, example, reference, troubleshooting, role of a viewer of said virtual book and level of experience of the viewer**”). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Wical, Mortimer, and Shima providing the benefit of processing document information according to a requirement of a writer of the documentation.




***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H Blackwell whose telephone number is 703-305-0940. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H Feild can be reached on 703-305-9792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James H. Blackwell  
05/25/04

  
JOSEPH FEILD  
SUPERVISORY PATENT EXAMINER